



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/153,673	06/06/2011	Mark J.H. Hsiao	YOR920110159US1	9526
48062	7590	07/19/2018	EXAMINER	
RYAN, MASON & LEWIS, LLP			GISHNOCK, NIKOLAI A	
2425 Post Road			ART UNIT	
Suite 204			PAPER NUMBER	
Southport, CT 06890			3715	
			NOTIFICATION DATE	
			DELIVERY MODE	
			07/19/2018	
			ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ctoffice@rml-law.com
kmm@rml-law.com
mjc@rml-law.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK J.H. HSIAO, PEI-YUN S. HSUEH,
SREERAM RAMAKRISHNAN, and LIANGZHAO ZENG

Appeal 2016-008467
Application 13/153,673¹
Technology Center 3700

Before KEN B. BARRETT, WILLIAM V. SAINDON, and
ANTHONY KNIGHT, *Administrative Patent Judges*.

KNIGHT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from a rejection of claims 17–25 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.² We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ According to Appellants, the real party in interest is International Business Machines. Appeal Br. 1.

² Claims 1–16 are cancelled. Appeal Br. 11, Claims App'x.

CLAIMED SUBJECT MATTER

The disclosure is directed to a computer implemented wellness decision support system that uses a risk assessment model to assess a user's risk and select an action plan for that user based on a risk assessment. Spec. 1:4–2:3. Claims 17 and 22 are the sole independent claims pending in the application. Claim 17, reproduced below, is representative of the claimed subject matter:

17. A computer program product comprising a tangible non-transitory computer readable recordable storage medium including computer useable program code for providing one or more user-centric wellness decision support services, the computer program product including:

computer useable program code for providing an interface that facilitates identification of a risk assessment model of interest for a user, wherein the interface is communicatively linked to at least one computing device;

computer useable program code for identifying, based on user input via the interface, (i) a risk assessment model, (ii) one or more risk factors, and (iii) a user specified level of importance associated with intervention on each of the one or more risk factors, wherein said identifying comprises processing, executed by the at least one computing device, the user input provided via the interface against a wellness knowledge repository communicatively linked to (i) the interface and (ii) the at least one computing device;

computer useable program code for applying the risk assessment model to one or more user wellness records to assess the user's wellness risk level, wherein said applying is executed by the at least one computing device in communication with a stored personal wellness record associated with the user; and

computer useable program code for ranking a set of multiple action plans (*ap*) based on the assessed user wellness risk level and the one or more user wellness records (*u*), wherein said ranking is executed by the at least one computing device in communication with the stored personal wellness record

associated with the user and comprises (i) matching a description of each of the multiple action plans (*ap*) to the one or more user wellness records (*u*), (ii) aggregating the level of importance (*imp*) for each of the one or more risk factors (*f*) under each of the multiple action plans, and (iii) determining an importance level of each of the multiple action plans by computing a weighted average (*w*) of factor importance within each of the multiple action plans via:

$$imp(u_a, ap_t) = \sum_{f_i \in ap_t} w_{f_i} \cdot imp(u_a, f_i), \text{ wherein } w_{f_i} = w_{f_i} \div \sum_{i=1}^n w_{f_i}, \text{ and}$$

wherein each of the multiple action plans comprises one or more relevant disease management and lifestyle interventions.

OPINION

Appellants presents arguments for independent claim 17, but do not present separate arguments for the remaining claims subject to this rejection. *See* Appeal Br. 6–10. The claims will be treated as a group, with claim 17 being representative, in accordance with 37 C.F.R. § 41.37(c)(1)(iv) (2014). Claims 18–25 stand or fall with claim 17.

Section 101 of the patent law provides that one may obtain a patent for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. The Supreme Court has held that this provision includes important exceptions, notably those that prohibit one from patenting abstract ideas, laws of nature, or natural phenomena. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014). Although a law of nature or an abstract idea is not patentable, the application of these concepts may be patentable.

Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289, 1293–94 (2012).

In deciding this Appeal, we apply the framework as set forth by the Supreme Court in *Mayo* and *Alice*. According to the *Mayo* and *Alice* framework, to determine whether claims are directed to ineligible subject matter, we apply the two-step test of *Mayo*, *id.* at 1296–97, which has been further explained in *Alice*, 134 S. Ct. at 2355. First, we determine whether the claims at issue are directed to a patent-ineligible concept such as an abstract idea. *Id.* Second, we “examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Id.* at 2357 (quoting *Mayo*, 132 S. Ct. at 1294, 1298). Although the second step in the *Mayo/Alice* analysis includes a search for an inventive concept, the analysis is not an evaluation of novelty or nonobviousness, but rather, a search for “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1294).

The Federal Circuit has described the first step as a determination of the “basic character of the [claimed] subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (citing *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Canada*, 687 F.3d 1266, 1273–74 (Fed. Cir. 2012)). The Federal Circuit has also indicated that this step should determine whether a claimed method “recites an abstraction — an idea, having no particular concrete or tangible form.” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014); *see also Alice*, 134 S. Ct.

at 2355 (“The ‘abstract ideas’ category embodies ‘the longstanding rule that ‘[a]n idea of itself is not patentable.’” (quoting *Gottschalk v. Benson*, 93 S. Ct. 253, 255 (1972) (further quotations and citations omitted)).

The Examiner’s Step One Analysis

The Examiner determines that the claims are directed to the abstract idea of insurance and risk analysis in that the claimed inventive concept is an “effort of pure thought.” Final Act. 3–4; Ans. 3, 6–9. Analyzing the claims as a whole, the claims recite nothing more than a “computer program product” using an algorithm to rank a set of multiple action plans using a weighted average of factor of importance. Appeal Br. 11 (Claims App’x.). As the Examiner determined, all the program limitations could be performed by a human. *See* Final Act. 4. (“The claim can be understood to merely require a human being, such as an analyst, to operate a computer in an ordinary way, for the benefits of speed, long-distance communication, and retrieval of data, which are well-known benefits of using computers for many applications.”). The present claims fall into the computer-as-a-tool category. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Contrasting claims directed to “an improvement to computer functionality itself” from claims directed to “economic or other tasks for which a computer is used in its ordinary capacity.”). *See also Bilski v. Kappos*, 130 S. Ct. 3218, 3230 (Explaining that claims containing an algorithm are unpatentable not because they contained the algorithm but, because once that algorithm was assumed to be within the prior art, the application, considered

as a whole, contained no patentable invention.)” Thus, the Examiner correctly determined that the claims are directed to an abstract idea.

The Examiner’s Step Two Analysis

In the Final action, the Examiner further determines that the claim limitations when considered individually or as an ordered combination did not amount to significantly more than the judicial exception. Final Act. 4; *see also* Ans. 10–11. The Examiner bases these determinations on the fact that a generic computer may be used to perform the invention and generic computers performing their intended function have been held by the Supreme Court to be routine and conventional. *Id.* at 4–5.

Claim 17 recites explicitly the use of a computer program product providing computer code for ranking a set of multiple action plans. The claim itself, however, does not describe any particular way for the computer to go about such ranking. Appellants’ Specification does not describe any new or unique computer hardware or software to perform these features. *See* Spec 19:20–22 (“These computer program instructions may be provided to a processor of a general purpose computer, special purpose computer, or other programmable data processing apparatus”), *see also id.* at 21:6–10 (“[I]t should be understood that the components illustrated herein may be implemented in various forms of hardware, software, or combinations thereof; for example, application specific integrated circuit(s) (ASICS), functional circuitry, one or more appropriately programmed general purpose digital computers with associated memory.”). As such, we agree with the Examiner’s finding that claim 17 requires only routine computer hardware because the Appellants’ Specification and Claims do not recite a need for

unique hardware or software to practice the claimed invention. Consistent with the Supreme Court’s decision in *Benson*, we conclude that simply reciting the use of a generic computer functionality in claim 17 to lend speed or efficiency to the performance of the abstract idea (ranking action plans) does not meaningfully limit claim scope for purposes of patent eligibility. *See Benson*, 93 S. Ct. at 255 (invalidating as patent-ineligible claimed processes that “can be carried out in existing computers long in use, no new machinery being necessary”). The Examiner is also correct in the determination that the claimed invention did not amount to significantly more than the judicial exception because Appellants’ Specification and claims do not require unique hardware or software but conventional computer components and conventional software.

Appellants’ Arguments

Appellants argue that the Examiner has improperly determined that the “mathematical concepts [] are expressly claimed [] ‘at a high level of generality.’” Reply Br. 3. Appellants point to the equation recited in claim 17 as an example and “Appellant[s] direct[] the Examiner’s attention to the specifically claimed step of ‘computing a weighted average (w) of factor importance within each of the multiple action plans,’” using the equation recited in claim 17. *Id.* We understand Appellants to argue that the invention recited in claim 17 is not an abstract idea because of the use of a particular algorithm to compute a weighted average of factor importance for each action plan suggested to a user. Further, it is our understanding of

Appellants' argument that by using the specific algorithm, action plans are recommended to the user based upon the factor importance calculation.

We agree with the Examiner that “[t]he idea of using an algorithm to rank a set of action plans according to a risk assessment and a user’s specified level of importance of risk factors is similar to ‘ideas standing alone.’” Ans. 3. In other words, a specific algorithm is still an algorithm. Without something significantly more, the algorithm is still an abstract idea and thus is not patent eligible subject matter. Appellants’ argument is not persuasive.

Appellants then contend that the Examiner has not considered “the collection of specific claim limitations as a whole.” Reply Br. 4. This is contrary to the express statement of the Examiner that the limitations of the claims are considered individually and as a combination. *See* Final Act 5; *see also* Ans. 8–9. The Examiner specifically reviewed the limitations of claim 17. *See* Final Act. 2–3. In addition, the Examiner made specific findings of fact with respect to the claims in the Final Action at pages 4 and 5, in addition to the further explanation provided in the Examiner’s Answer. Appellants do not explain why the Examiner’s analysis does not consider the claim limitations as a whole. Thus, as stated above, the Examiner has addressed the specific claim limitations individually and as a whole and we are not apprised of error in the Examiner’s rejection.

According to Appellants, “the specific limitations of the independent claims affirmatively include a specific improvement to the way computers operate.” Reply Br. 4. Appellants contend that they are “adding a specific limitation other than what is well-understood, routine and conventional in

the field.” Appeal Br. 6. Appellants, however, do not identify this limitation.

Appellants recite two instances in the Specification in which computer operations are allegedly improved in the Reply Brief namely, “bootstrapping the processing of personal wellness risk profiling from examples, saving users from the high entry barrier of manual input,” and “develop[ing] a configurable wellness decision service engine, where service providers, with permission from the user, can plug-in various wellness evidences to provide personalized services.” *Id.* Appellants’ claims do not recite these features as limitations. Further, Appellants’ Specification does not describe any new or unique computer hardware or software to perform these features. *See* “The Examiner’s Step Two Analysis” *supra*. Further, the law is clear that simply programming a computer to perform what would otherwise be an abstract idea is not sufficient to impart patent eligibility. *See Alice*, 134 S. Ct. at 2359.

Appellants then argue that the claimed invention recites “a combination of elements sufficient to ensure that the claims are significantly more than the alleged abstract idea.” Reply Br. 5; Appeal Br. 6. Appellants’ argument does not explain how the limitations of the claimed invention amount to significantly more than the abstract idea. Unlike the claims at issue in cases such as *DDR Holdings LLC v Hotels.com LP*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (finding that the claims at issue are “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks”). Appellants have neither identified the claim limitations that are directed to solving a problem in the computer arts, nor stated what problem is being solved. Instead, Appellants’

claims are stated at a high level of generality and do not provide an inventive concept sufficient to transform the abstract idea into patent-eligible subject matter. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (quoting *Alice Corp. 134 S. Ct. at 2357* (2014)). Accordingly, without more, Appellants' argument that the claimed invention is an improvement in the computer art does not apprise us of error in the Examiner's rejection.

Appellants then argue that the Examiner acknowledges that the claimed invention is novel and nonobvious because the Examiner has withdrawn the rejection based upon prior art. Thus, according to Appellants, the claims include "a specific limitation other than what is well-understood, routine and conventional in the field." *Id.* at 7.

A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 132 S. Ct. at 1304. Further, "under the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility." *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016). Appellants' argument that the claims are novel and unobvious does not persuade us of error in the Examiner's rejection.

Appellants next argue that the "Examiner's unsupported allegation that the claims implement the abstract idea 'with routine, conventional activity' is directly contradicted by the Examiner's subsequent acknowledgement that the claims are novel and non-obvious." Appeal Br. 7. The Examiner cites to *Alice* for support that a generic computer is routine and conventional. *See* Final Act. 5 ("[T]he claims simply instruct the

practitioner to implement the abstract idea with routine, conventional activity. *See also Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014”).

The Court stated in *Alice* that implementing a mathematical algorithm on a computer is well-understood, routine and conventional. *See Alice*, 134 S. Ct. 2352 (“We hold that the claims at issue are drawn to the abstract idea of intermediated settlement, and that merely requiring generic computer implementation fails to transform that abstract idea into a patent-eligible invention.”). We agree with the Examiner’s determination that the computer of the claim is well-understood, routine and conventional because as we stated previously, the Claims and Specification do not recite unique hardware or software, only conventional computer components. *See* “The Examiner’s Step Two Analysis” *supra*.

Appellants then argue that “the Examiner has erred as a matter of law by alleging that ‘a novel abstract idea remains an idea, and cannot be per se eligible.’” Appeal Br. 8; Reply Br. 7. To the extent that Appellants are arguing that a claim that includes an abstract idea is patent eligible subject matter if it includes something that is significantly more than the judicial exception. This is true; however, the Examiner did not err in determining that the claim lacks something that is significantly more than the judicial exception as we explained above. *See* “The Examiner’s Step Two Analysis” *supra*. Without the claim defining something that is significantly more than the judicial exception, the subject matter of the claim is patent-ineligible. Accordingly, Appellants’ argument is unpersuasive.

Appeal 2016-008467
Application 13/153,673

Accordingly, we sustain the rejection of claim 17 based upon the reasoning discussed *supra*. We also sustain the rejection of claims 18–25. Thus, the rejection of claims 17–25 is sustained.

DECISION

For the above reasons, the Examiner’s rejection of claims 17–25 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED